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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/696,517 | 10/29/2003 | Prasad V. Gade | DP-304939 | 6380 |

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| EXAMINER | |
|---|---|
| MANCHO, RONNIE M | |

| ART UNIT | PAPER NUMBER |
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| 3663 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/696,517 | GADE ET AL. | |
| | Examiner | Art Unit | |
| | Ronnie Mancho | 3663 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *11 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *24-30 and 38-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *24-30,38-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 24-30, 38-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Takano et al (5060919).

Regarding claim 24, Takano et al (abstract; fig. 1; col. 1, lines 58 to cols. 2, 3, 4) discloses a method of controlling a hydraulic mount (fig. 1, col. 1, line 57 to col. 2, line 34) between an object (i.e. engine) and a base (chassis of vehicle; col. 8, lines 8-22), the object having a bounce resonance frequency, comprising:

calibrating at least one tunable parameter (viscosity of fluid tuned to cope with vibration, col. 8, lines 8-22) of a control system of the mount (damper, fig. 1) based on the bounce resonant frequency (col. 8, lines 8-22) of the object (i.e. engine);

generating a first acceleration signal indicative of an acceleration of the object (col. 8, lines 42-53);

generating a second acceleration signal indicative of an acceleration of the base (col. 8, lines 42-53);

determining a relative acceleration across the mount based on the first and second acceleration signals (col. 8, lines 45-65);

generating a control signal responsive to the relative acceleration based on the at least one tunable parameter (col. 7, lines 50 to col. 8, line 3, lines 45-53); and

controlling the flow of MR mount fluid in the mount responsive to the control signal to minimize (see col. 8, lines 22-33) the relative acceleration across the mount over a predetermined band of frequencies.

Regarding claim 25, Takano et al (abstract; fig. 1; col. 1, lines 58 to cols. 2, 3, 4) discloses the method of claim 24 wherein the predetermined band of frequencies occurs at and around the resonance bounce frequency of the object (col. 8).

Regarding claim 26, Takano et al (abstract; fig. 1; col. 1, lines 58 to cols. 2, 3, 4) discloses the method of claim 25 wherein calibrating at least one tunable parameter comprises tuning an objective function obtained by a sensitivity function (col. 8).

Regarding claim 27, Takano et al (abstract; fig. 1; col. 1, lines 58 to cols. 2, 3, 4) discloses the method of claim 326 wherein calibrating at least one tunable parameter comprises tuning a weighting function (col. 8).

Regarding claim 28, Takano et al (abstract; fig. 1; col. 1, lines 58 to cols. 2, 3, 4) discloses the method of claim 27 wherein the weighting function is limited to the resonance bounce frequency (col. 8).

Regarding claim 29, Takano et al (abstract; fig. 1; col. 1, lines 58 to cols. 2, 3, 4) discloses the method of claim 28 wherein calibrating at least one tunable parameter comprises tuning an associated scalable factor (col. 8).

Regarding claim 30, Takano et al (abstract; fig. 1; col. 1, lines 58 to cols. 2, 3, 4) discloses the method of claim 29 wherein the associated scalable factor is used to increase and decrease the magnitude of the weighting function (col. 8).

Regarding claim 38, Takano et al (abstract; fig. 1; col. 1, lines 58 to cols. 2, 3, 4) discloses a system for controlling a hydraulic mount (fig. 1, col. 1, line 57 to col. 2, line 34) between an object (i.e. engine) and a base (vehicle chassis), the object having a bounce resonance frequency, the system comprising:

Means for modifying at least one tunable parameter (viscosity of fluid tuned to cope with vibration, col. 8, lines 8-22) of a control system of the mount (cols. 8, 9) based on the bounce resonant frequency (cols 8, 9) of the object (i.e. engine);

Means for generating a first acceleration signal indicative of an acceleration of the object (col. 8, lines 42-53);

Means for generating a second acceleration signal indicative of an acceleration of the base (col. 8, lines 42-53);

Means for determining a relative acceleration across the mount based on the first and second acceleration signals (col. 8, lines 45-65);

Means for generating a control signal responsive to the relative acceleration based on the at least one tunable parameter (col. 7, lines 50 to col. 8, line 3, lines 45-53); and

Means for controlling the flow of MR mount fluid in the mount responsive to the control signal to minimize (see col. 8, lines 22-33) the relative acceleration across the mount over a predetermined band of frequencies.

Regarding claim 39, Takano et al (abstract; fig. 1; col. 1, lines 58 to cols. 2, 3, 4) discloses the method of claim 38 wherein the predetermined band of frequencies occurs at and around the resonance bounce frequency of the object (i.e. engine col. 8).

Regarding claim 40, Takano et al (abstract; fig. 1; col. 1, lines 58 to cols. 2, 3, 4) discloses the method of claim 39 wherein the means for tuning at least one tunable parameter comprises an objective function obtained by a sensitivity function (see sensor s 90, 92, fig. 1).

Regarding claim 41, Takano et al (abstract; fig. 1; col. 1, lines 58 to cols. 2, 3, 4) discloses the method of claim 40 wherein the means for tuning at least one tunable parameter comprises a weighting function (cols. 3, 8, 9) .

Regarding claim 42, Takano et al (abstract; fig. 1; col. 1, lines 58 to cols. 2, 3, 4) discloses the method of claim 41 wherein the weighting function is based on the resonance bounce frequency (col. 8).

Regarding claim 43, Takano et al (abstract; fig. 1; col. 1, lines 58 to cols. 2, 3, 4) discloses the method of claim 42 wherein the means for tuning at least one tunable parameter comprises an associated scalable factor (col. 8).

Regarding claim 44, Takano et al (abstract; fig. 1; col. 1, lines 58 to cols. 2, 3, 4) discloses the method of claim 43 wherein the associated scalable factor is used to increase and decrease the magnitude of the weighting function (cols. 3, 8, 9).

Regarding claim 45, Takano et al (abstract; fig. 1; col. 1, lines 58 to cols. 2, 3, 4) discloses a system for a hydraulic mount positioned between a vibrating object (i.e. engine) and a base (vehicle chassis), said vibrating object having a bounce resonance frequency, the system comprising:

Means for generating a first acceleration signal (col.1, lines 39-54; col. 3, lines 33 to col. 4) indicative of an acceleration of said object;

Means for generating a second acceleration signal (col.1, lines 39-54; col. 3, lines 33 to col. 4) indicative of an acceleration of said base;

Means for determining 86 (col. 3, line 25) a relative acceleration (vibration, col. 3, lines 33-42) across the mount (col. 2, lines 7-16) based on the first and second acceleration signals;

Means for generating a control signal (88, cool. 3, lines 31&32) corresponding to the relative acceleration (vibration, col. 3, lines 33-42; col. 3, line38-42); and

Means for controlling the flow of MR mount fluid in the mount responsive to the control signal (col. 8);

means for tuning the control system to minimize the relative acceleration across the mount occurs at and around the bounce resonance bounce frequency (cols. 8, 9) of the object.

***Response to Arguments***

3. Applicant's arguments filed 10/11//07 have been fully considered but they are all not persuasive.

The 112 rejections have been withdrawn in view of applicant's amendments.

Applicant's argument that the prior art redesigns the system is not convincing because the prior art does not take the system from the vehicle back to the laboratory or repair shop for a redesign process. In Takano the viscosity of the electrorheological fluid similar to that of the invention as the name "electrorheological" of the fluid applies to that. Applicant also passes a

current in the fluid wherein the viscosity is altered. This does not encompass redesigning a system as argued. Applicant is reading limitations from the specification into the claims, this is not permissible.

Applicant's argument that the prior art does not disclose calibration is not convincing. The prior art disclose a graphs (figs. 3-5) showing a calibration of the controller indicating a calibration of tunable parameter such as frequency to control vibrations. Therefore, the prior art anticipates the claims.

***Communication***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronnie Mancho whose telephone number is 571-272-6984. The examiner can normally be reached on Mon-Thurs: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ronnie Mancho
Examiner
Art Unit 3663

1/5/2008

JACK K
SUPERVISORY PATENT EXAMINER